

Abstract of the Disclosure

An apparatus and method automatically adjusting the brightness and the color temperature of a screen to an optimum state according to input RGB signals. The apparatus includes an RGB color signal generator and a system controller. The RGB color signal generator determines a maximum value of each of the input RGB color signals and a total maximum value, compares the total maximum value with a predetermined critical value, adjusts the brightness level of the input RGB color signals based on the comparison result, compares the maximum values, and if one of the maximum values is higher than the others, generates RGB color signals, one of which has a color temperature varying according to a predetermined value. The system controller provides the RGB color signal generator with data on the predetermined critical value and a reference value used for detecting the color signal having the higher maximum value.